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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/723,816	11/26/2003	Gilles Couvrette		9814

7590 04/13/2006

INVENTARIUM

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CANADA

EXAMINER

LUKS, JEREMY AUSTIN

ART UNIT

PAPER NUMBER

2837

DATE MAILED: 04/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 10/723,816	Applicant(s) COUVRETTE, GILLES	
	Examiner Jeremy Luks	Art Unit 2837	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11/26/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

1. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kingsley (2,072,372) in view of Wilman (FR 1261203 A).

With respect to Claims 1 and 2, Kingsley discloses an adjustable muffler comprising: an outer cylinder and an inner resonator (Figure 1, #8); a muffler chamber (6) being defined as the space within said outer cylinder and the outside of said inner resonator; an entrance port (4) having a given opening area and through which said exhaust gases enter said muffler chamber (6); a resonator baffle (11) to divert exhaust gases around said inner resonator (8); said inner resonator (8) having a plurality of resonator holes along its length and through which enters said exhaust gases; a secondary resonator (10) set between said inner resonator (8) and an exit port (5); and a sliding rod (Figure 2, #20) sliding

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along an axis parallel to the length of said outer cylinder (6). Kingsley fails to disclose a moveable plug to vary the available surface area for exiting exhaust gases; said moveable plug being actuated between closed and open configuration; an annular passage created when said plug slides to an open position; said annular passage surrounding said moveable plug to increase surface area available for said exhaust gases. Nevertheless, Wilman discloses a moveable plug (Figure 2, #3) to vary the available surface area for exiting said exhaust gases; said moveable plug (3) being actuated between closed and open configuration; an annular passage created when said sliding rod slides to an open position (Figure 2); said annular passage surrounding said moveable plug (3) to increase surface area available for said exhaust gases; actuating said moveable plug (3) into a closed configuration closes an annular passage while decreases exit surface area making the total surface area available at the secondary resonator (9) equal to the available surface area at the entrance port (10) and thus reducing sound level.

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the apparatus of Kingsley with the apparatus of Wilman to provide a greater range and more efficient level of backpressure attenuation. The valve of Kingsley has only one opening that can be opened or closed. The secondary resonator has several perforations and can be variably opened by the plug depending on the level of pressure and sound attenuation desired.

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With respect to Claims 3-5, Kingsley discloses a sliding rod (Figure 2, #20) activated by actuation means (19), wherein an attachment means (28) is provided to attach said actuation means (19).

With respect to Claim 9, Wilman discloses a cylindrical seal (Figure 1, #2) seals an area between the outside of said inner resonator and the inside of said moveable plug (3).

With respect to Claims 7 and 8, Kingsley discloses supporting segments (15, 3) support the inner resonator (8) and secondary resonator (10) within the center of said outer cylinder (6).

With respect to Claim 9, Kingsley discloses the secondary resonator (10) has a horn like ending.

Response to Arguments

2. Applicant's arguments with respect to Claims 1-9 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Pertinent Arts of record relating to sound level adjustable mufflers are disclosed in the PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeremy Luks whose telephone number is (571) 272-2707. The examiner can normally be reached on Monday-Thursday 8:30-6:00, and alternating Fridays 8:30-5:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula Bradley can be reached on (571) 272-2800 x33. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jeremy Luks
Patent Examiner

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A handwritten signature in black ink, appearing to read 'Edgardo San Martin', is written over a light gray grid background.

Edgardo San Martin
Primary Examiner